## **SEIT Technical Details**



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16 Dec 02

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- Purpose and Overview
- Product Development Context
- Roles/Responsibilities
  - Government Program Management
  - Common Software, Framework, legacy system and UPC Developers
  - System Engineering Integration Team
    - Systems Engineering Integration Contractor (SEIC)
    - Systems Engineering Integration Government members
- Interactions
- Example Roles/Responsibilities interactions
- Challenges for industry

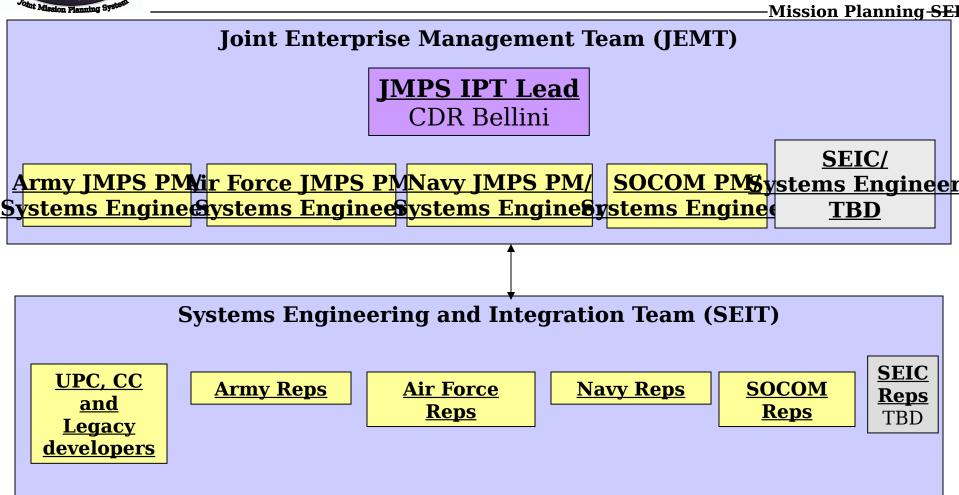
# Systems Engineering Integration Team Mission Planning SEI

## Purpose

- The Mission Planning vision is to evolve Mission Planning into a set of mission planning tools and components for all of DoD.
- The purpose of the SEIT is to ensure that these tools and components are architecturally sound, robust, controlled, easy to use, integrate well with the system, adhere to government standards, and adhere to JMPS business and technical rules.



## JMPS Organization



JMPS SEIT Will Be a Distributed Gov't and Industry Team



## SEIT Sphere of Influence

Mission Planning<del>-SE</del>

- Key Products/ Provided by other contractors
  - JMPS Framework Software
  - JMPS Common Software
  - JMPS UPC Software
  - Legacy systems
- Goals
  - Foster the migration of legacy systems
  - JMPS integration to the battle space
- Influence varies for each software type and by level of support required by each of the Services.
- Influence begins at early conceptualization phase for
  - New software to be integrated into JMPS
  - Updates to existing JMPS related products

SEIC plays a role within the sphere





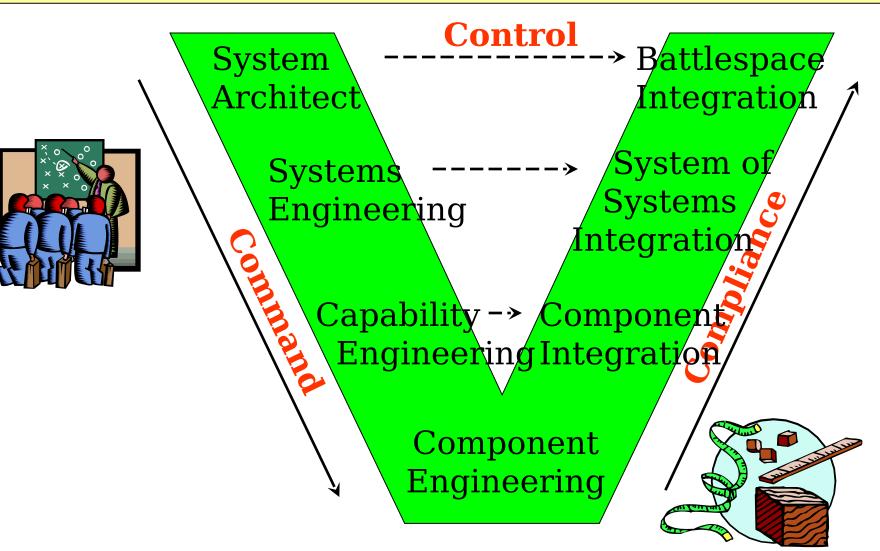
- Integration
- Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
- CM/DM/QA Illities
- Cost, Schedule, Performance and Quality
- Risk Management

- Process Definition and Management
- User Support
- Engineering Management
- Government Program Management Support
- Developer Support
- Maintain Close Coordination with Warfighters

# JMPS F

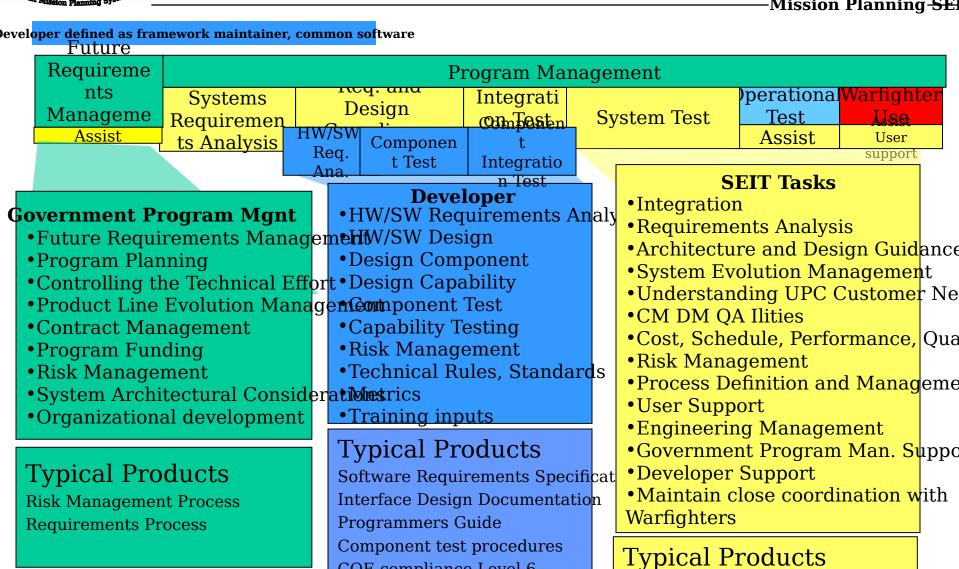
## JMPS Product Development

**Integration of Mission Planning Systems into the Battle space** 



## Typical Product Responsibilities

-Mission Planning <del>SE</del>I



COE compliance Level 6

Security compliance & Metrics re

Schedule, Metric reports, Data

Master

Top-level Architecture, Integrated



# Government Program Management Mission Planning SEI

Requireme nts Manageme Assist

Program Management

**Key** (SC) SEIT Contractor

(G) Government

(CC) Common Software/framework maintainer developers

#### Future Requirements Management

- 1. Development/adherence to Requirements Process (G)
- 2. Identify and manage future requirements in accordance with the requirements process. (B)

#### Government Program Mgnt

- •Future Requirements Management
- •Program Planning
- Controlling the Technical Effort
- Product Line Evolution Management.
- Contract Management
- Program Funding
- •Risk Management
- System Architectural Considerations
- •Government schedule inputs
- •Organizational development

#### Program Planning / Scheduling

 Provide direction to be given to contractors of the level of detail and incorporation of changes for schedule, i.e contractors deliverables (G)

- 2. Establish operational need dates (G)
- 3. Approve schedule (G)
- 4. Provide external system schedules (G)

#### **Typical Products**

Risk Management Process Requirements Process

#### Controlling the Technical Effort

- 1. Approve system level use cases, interfaces, object model, build content and changes (G)
- 2. Systems engineering team provides advice to the government regarding direction to be given to contractors concerning use case, interface, object model level of detail and incorporation of changes to



# Government Program <u>Management</u> Mission Planning SEI

Requireme nts
Manageme
Assist

Program Management

Key (SC) SEIT Contractor

(G) Government

(CC) Common Software/framework maintaine developers

#### **Product Line Evolution**

- (B) SC and/or G
- 1. Systems Engineering provide inputs on roadmap milestones and options (G)
- 2. Systems Engineering provides advice regarding direction to be given to contractors concerning level of detail and incorporation of changes to all contractors regarding incorporation of new technology (G)

#### Government Program Mgnt

- Future Requirements Management
- Program Planning
- •Controlling the Technical Effort
- Product Line Evolution Management
- •Contract Management
- •Program Funding
- •Risk Management
- System Architectural Considerations
- Organizational development

- Contract Funding
  - 1. Provide contracts management (G) (See contract)

#### Program Funding

1. Obtain/retain program funding (G)

#### **Typical Products**

Risk Management Process

Requirements Process

#### Risk Management

- 1. Manage risks in accordance with existing JMPS documented Risk Management Process (G)
- 2 Ensure compliance for risk process (G)



# Government Program <u>Management</u> Mission Planning SEI

Requireme nts Manageme

Assist

Program Management

Key (SC) SEIT Contractor

(G) Government

(CC) Common Software/framework maintainer developers

(B) SC and/or G

### Government Program Mgnt

- Future Requirements Management
- Program Planning
- •Controlling the Technical Effort
- Product Line Evolution Management
- •Contract Management
- Program Funding
- •Risk Management
- •System Architectural Considerations
- Organizational development

#### **System Architectural Considerations**

- 1. Approve use cases/requirements, interfaces, object model, what is contained in the builds. (B)
- 2. Review performance analysis (B)
- 3. Ensure JTA/COE compliance standards are met (B)
- 4. Provide guidance to software developers regarding top level system architecture. (B)
  - 1. Level of detail for use cases, interface, object model

#### Typical Products

Risk Management Process Requirements Process

#### Organizational development

- 1. Develop Organization (B)
- 2. Attend Meetings, design reviews (B)

## ramework Maintainers, CC Developer

HW/SW
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-Mission Planning-<del>SE</del>I

Key (SC) SEIT Contractor

- (G) Government
- (CC) Common Software/framework maintainer developers
- (B) SC and/or G

#### Developer

- •HW/SW Requirements Analysis
- •HW/SW Design
- •System Architecture
- \*Design Component
- •Design Capability
- Component Test
- Capability Testing
- •Risk Management
- Technical Rules, Standards
- Metrics
- Training inputs

#### 

- 1. Develop Use Cases (CC)
- 2. Assist in HW, COTS evaluation, if required (CC)
- 3. Provide inputs for User Manual & Programmer Guide (CC)
- 4. Provide inputs for Interface development (IDD), and maintain control of I/F (CC)

#### **Typical Products**

Software Requirements Specification
Interface Design Documentation
Programmers Guide
Component test procedures
COE compliance Level 6

COE compliance Level 6
Security compliance & Metrics report

#### HW/SW Design

#### System Architecture

- 1. Implement JMPS IPT Approved system level use cases (CC)
- 2. Develop interfaces, object model, build content and provide for changes (CC)
- 3. Build/implement Object Model to top level system architecture as defined by the government (CC)
- 4. Build components level of componentization as defined from System Architecture (CC)

#### Design Component



## ramework Maintainers, CC Developer

– Mission Planning-<del>SE</del>I

Req. Componen t Integratio n Test

Key (SC) SEIT Contractor

(G) Government

#### **Component test**

(CC) Common Software/framework maintainer developers

- 1. Perform Composers entering at the composers of the com
- 2. Develop/Comply with test plan, procedures, and provide results of testing (CC)

#### **Developer**

- •HW/SW Requirements Analysis
- •HW/SW Design
- System Architecture
- Design Component
- Design Capability
- •Component Test
- •Capability Testing
- •Risk Management
- •Technical Rules, Standards
- Metrics
- Training inputs

#### Capability testing

- 1. Review JMPE System test to avoid duplication (CC)
- 2. Conduct requirements test of component (CC)
- 3. Conduct certification test (COE, Security) (CC)

#### Typical Products

Software Requirements Specification Interface Design Documentation

Programmers Guide

Component test procedures

COE compliance Level 6

Security compliance & Metrics report

#### Risk Management

- Manage risks in accordance with existing JMPS documented Risk Management Process (CC)
- 2. Execute Risk Management (CC)

## Comply with JMPS Business and Technical Rules, Standards (CC)

#### **Metrics input**

1. Comply with SEIT Metrics plan (CC) (Metrics CDRL)

#### Training

Provide training inputs for instruction/manuals 3



## Integration Illustration

Horizontal Integration

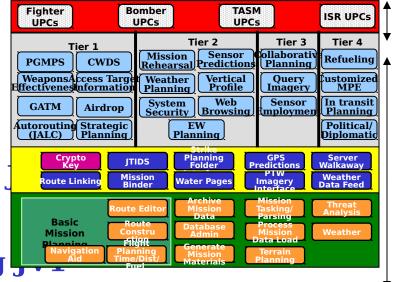
**UPCs** 

Future Common Capabilities

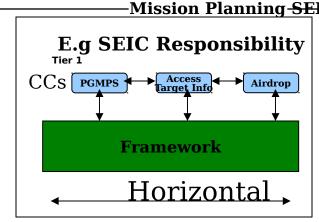
In development

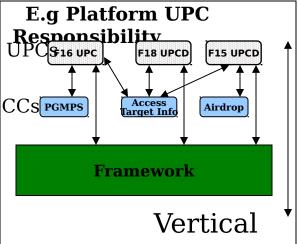
Framework/

**Flight Planning** 



Vertical Integration





- Horizontal (CC to CC) integration
- Vertical (Framework to CCs to Platform UPC) integration



**Systems** Requiremen ts Analysis

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Mission Planning SE Operationa Warfighter System Test Test Assist

Key (SC) SEIT Contractor

(CC) Common Software/framework maintainer

(G) Government

#### **SEIT Tasks**

- •Integration
- Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
- •CM DM QA Ilities
- •Cost, Schedule, Performance, Quality 4.
- •Risk Management
- Process Definition and Management
- User Support
- •Engineering Management
- Government Program Man. Support
- Developer Support
- Maintain Close Coordination with

Warfighters

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metrics reports, Data Model, CM Plan

- Integration
  - Perform Vertical and a horizontal integration of common software (B)

developers

- 2. Provide integration support for UPC, as required (B)
- Provide UPC compatibility testing (B) 3.
  - Coordinate between common software developers to ensure compatibility (B)
- 5. Establish and ensure adherence to design standards (B)
- 6. Ensure compliance with business and technical rules (B)
- 7. Provide integration support for User Developed Apps (B)
- 8. Ensure development of and maintain C4ISP architecture data views, in accordance with C4ISP Framework (B)
- 9. System Verification and Validation
  - 1 Support Government DT/OT for



**Systems** Requiremen ts Analysis

Reg. and Integrati Design on Test Compliance |

System Test

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Key (SC) SEIT COMPROPRE

(G) Government

#### **SEIT Tasks**

- Integration
- •Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
- •CM DM QA Ilities
- •Cost, Schedule, Performance, Quality 13.
- •Risk Management
- Process Definition and Management 14.
- User Support
- •Engineering Management
- Government Program Man. Support
- Developer Support
- Maintain Close Coordination with Warfighters

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metrics reports, Data Model, CM Plan

- Integration (continued) ommon Software/framework maintainer developers
- 10. Perform SecurityBcectification/Accreditation (B)
- 11. Provide Public Interface control (B)
- 12. Integrate and test JMPS Framework and common software (B)
- Integration of additional flight planning software per government request. (B)
  - Assist other developers in asynchronous testing (B)
- Support compatibility testing among UPCs (B)

#### **Requirements Analysis**

- Manage and review JMPE System requirements (B)
- 2. Develop JMPE System requirements, ie. ISRT inter-service requirements team (G)
- 3. Manage high-level Use Case data base and traceability to system requirements and system tests (B)
- Manage operational Use Case data hase and 16



**Systems** Requiremen ts Analysis

Reg. and Design Compliance |

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Key (SC) SEIT COMPROPIE

(G) Government

(CC) Common Software/framework maintainer developers

#### **SEIT Tasks**

- Integration
- •Requirements Analysis
- Architecture and Design Guidance
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#### Requirements Analysis (continued)

- Support the software developers regarding compliance with the top level system architecture. (B)
- Level of detail for use cases, interface, object model (B)
- Ensure all interface/requirements disconnects are resolved (B)

#### **Architecture and Design Guidance**

- 1. Ensure system to systems compliance (I.e. C4ISP)(B)
- 2. Develop/maintain top level architecture, identify Interdependencies between CC and Framework components, and data modeling (B)
- 3. Provide design guidance in accordance with operational, system and technical architectures

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

#### **System Evolution Management**

Build roadmap with milestones (B)



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Key (SC) SEIT Contractor

(G) Government

#### **SEIT Tasks**

- Integration
- •Requirements Analysis
- Architecture and Design Guidance
- •System Evolution Management
- •Understanding UPC customer needs
- •CM DM OA Ilities
- •Cost, Schedule, Performance, Quality C.
- Risk Management
- Process Definition and Management
- User Support
- Engineering Management
- •Government Program Man. Support e.
- Developer Support

Warfighters

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

### System Evolution Management Software/framework maintaine developers

- Manage COTS, Softwar<sup>(B)</sup>, Ffandwar<sup>(C)</sup> 1.
  - Evaluate COTS, Software and Hardware a. upgrades and provide recommendations, anticipate evaluation once a year (B)
  - b. Purchase upgrade (G)
  - Recommend COTS product integration into next maintenance release (B)
  - Provide COTS, Hardware, and Software d. upgrades, if required (B)
    - Manage licenses, if required (B)

#### •Maintain Close Coordination With Inderstanding UPC Customer needs

- 1. Attend design reviews, TIMs, UPC events, working groups (I.e COE) etc.., per govt request (B)
  - ~63 (AF/Navy/Army) UPCs (potential for fewer meetings, since a contractor may build more than one UPC) over 7-10 yrs
  - 2. ~40 Common Capabilities (many components may be reviewed at once since there is only a few contractors developing the CC software).



## CLIT Toolso

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						(G) Govern		
	•Integratio		Une	derstanding	(CC) Commo developers UPC <sub>B</sub> Custon	n Software/framework n <b>ner needs</b>	ıaintainer	
	•Requirem •Architectu		1.	-	in Working Gi COE, etc) (B)	roup Support (I.e		
<ul><li>System Evolution Managemen</li><li>Understanding UPC Custon</li></ul>			<mark>en</mark> t <b>omer*Nee</b>	gм	<b>.</b> ,	, , ,		
	• CM DM ( • Cost, Sch		1.			knowledge repos	itory	
<ul> <li>Risk Management</li> <li>Process Definition and Management</li> <li>User Support</li> </ul>			<mark>ag</mark> ement	2.	_		e Configuration, including manage	ement

- User Support
- Engineering Management •Government Program Man. Support
- Developer Support
- Maintain Close Coordination with

Warfighters

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

- source code, docs, etc..) including management of multiple baselines, captured in CM Plan (B)
- 3. Provide Hardware System configuration management (as installed) (G)
- Control, distribute and archive all versions 4. (framework, Common Components and service specified tasks for UPCs) (G-Navy, B-AF, Army)
- 5. Build and test integration test scripts (B)
- 6. Build and test developer install scripts (SC)
- 7. Maintain integrated programmers guide, Interface Control Documents certifications 19



**Systems** Requiremen ts Analysis

Reg. and Design Compliance |

Integrati on Test

System Test

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Warfighter

Mission Planning SE

Key (SC) SEIT Contraction port

- (G) Government
- (CC) Common Software/framework maintainer developers

- **SEIT Tasks**
- Integration
- •Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
- •CM DM QA Ilities
- •Cost, Schedule, Performance, Quality bottlenecks (B)
- •Risk Management
- Process Definition and Management
- User Support
- •Engineering Management
- Developer Support
- Maintain Close Coordination with

Warfighters

Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

- Cost, Schedule, Performande, Quality
  - Development of Integrated Master Schedule (B)
  - Tracking of costs (G)
  - Provide Performance assessment and identification
- - Manage risks by extending existing JMPS 1. documented Risk Management Process (B)
- •Government Program Man. Support Process Definition and Management
  - Define and manage CM Process (B)
  - 2. Define Multiple Baseline Processes (B)
  - 3. Define and manage CDRL process (G)
  - Define and manage Risk Management Process (G) 4.
  - 5. Define and manage Metrics Process (B)
  - 6. Define and manage Problem Reporting Process (B)



Systems Requiremen ts Analysis

Reg. and Design **Compliance** 

Integrati on Test

System Test

Operationa Test Assist

Warfighter Support

Mission Planning SE

Key (SC) SEIT Contractor

(G) Government

(CC) Common Software/framework maintainer developers

(B) SC and/or G

**SEIT Tasks** 

Integration

Requirements Analysis

Architecture and Design Guidance

System Evolution Management

Understanding UPC Customer Needs2.

CM DM OA Ilities

•Cost, Schedule, Performance, Quality<sup>3</sup>.

•Risk Management

Process Definition and Management

•User Support

Engineering Management

Government Program Man. Support

Developer Support

Maintain Close Coordination with

Warfighters

Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

**User support** 

1. Provide Hot Line, Help Desk, Web site for users (G)

Manage operational releases, including tech data (

Build releasable configurations for field (G)

Provide release notifications to the field (G) 4.

5. Distribute releases (Web, CD) for field operations (

6. Assist in network installations for field operations (

7. Integrate GFI and UPC training modules (G)

8. Publish and distribute training material (Web, CD)

9. Provide online learning courses (G)

10. Develop integrated users manual (G)

11. Provide onsite support to users (G)

Provide JMPE Support to Sustainment team (SC)



t Mission Planning System
Systems
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Reg. and Design **Compliance** 

Integrati on Test

System Test

Operationa Test Assist

Warfighter

Mission Planning <del>SE</del>

Key (SC) SEIT Con Support

(G) Government

#### **SEIT Tasks**

- Integration
- Requirements Analysis
- Architecture and Design Guidance3.
- System Evolution Management
- •Understanding UPC Customer Needs
- CM DM QA Ilities
- •Risk Management
- Process Definition and Management
- •User Support
- •Engineering Management
- •Government Program Man. Support
- Developer Support
- Maintain Close Coordination with Warfighters

#### Typical Products

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

#### $\textbf{User support (continue} (C)^{C)}, \textbf{Common Software/framework maintainer}$ developers

- 12. Provide system setup ana heckout (G)
- Perform system procurement(G)
  - Develop and execute User Training (G)
  - 15. Provide Inventory control point (G) (including
- Cost, Schedule, Performance, Quality management of repair contracts)
  - Maintain user licenses (G)
  - 17 Perform site activation (G)

#### **Engineering Management**

- Investigate and recommend best approach for a 1. Centralized Problem Reporting System, document in CM process. (B)
- Provide Deficiency Reporting (DR) database (G)
- 3. Collect/Report Metrics, according to metrics plan
- Ensure compliance with Business and Technical Rules 4. (B)
- 5. Manage SEIT activities through a Project Schedule (B)



Systems
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Key (SC) SEIT Contractor

- (G) Government
- (CC) Common Software/framework maintainer developers
- (B) SC and/or G

#### **SEIT Tasks**

- Integration
- •Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Needs
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- Cost, Schedule, Performance, Quality
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#### **Typical Products**

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

#### **Government Program Man. Support**

1. Support of government program tasks (SC)

#### **Developer Support**

- 1. Provide Developer Training, SDKs, Wizards (SC)
- 2. Provide Helpdesk, hotline (SC)
- 3. Maintain Website (SC)
- 4. Provide consulting guidance, and support (SC)



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Req. and
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Integrati on Test

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System Test

Operationa Test Assist

Warfighter
Use
Assist User
Support

Mission Planning SE

**Key** (SC) SEIT Contractor

(G) Government

(CC) Common Software/framework maintainer developers

Maintain close coordination with

#### **SEIT Tasks**

- Integration
- Requirements Analysis
- Architecture and Design GuidarMarfighters
- System Evolution Management
- Understanding customer needs
- CM DM QA Ilities
- •Cost, Schedule, Performance, Quality
- •Risk Management
- Process Definition and Management
- User Support
- •Engineering Management
- •Government Program Man. Support
- Developer Support
- •Maintain close coordination with <sup>5</sup>.
  Warfighters

#### **Typical Products**

Top-level Architecture, Integrated Master

Schedule, Metric reports, Data Model, CM Plan

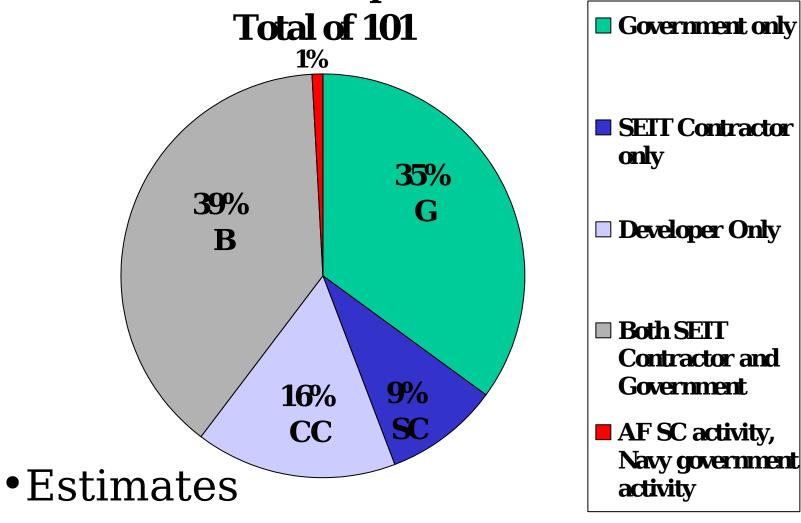
- 1. Define roles/responsibilities (B)
- 2. Assist with Market Mission Planning services to community (B)
  - Develop ways to support UPC development efforts (B)
  - Develop ways to support and market for foreign sales (G)
  - Participation in Mission Planning User Conferences, and OAG (B)
- 6. Participation in meetings with warfighters, showing demo's, prototypes, and use cases, per government request (B)
- 7. Participation in Joint Requirements Board (JRB), per government request. (B)
- 8. Support quarterly exercises, I.e red flags, JEFX<sub>2</sub>



## Preliminary SEIT Tasks

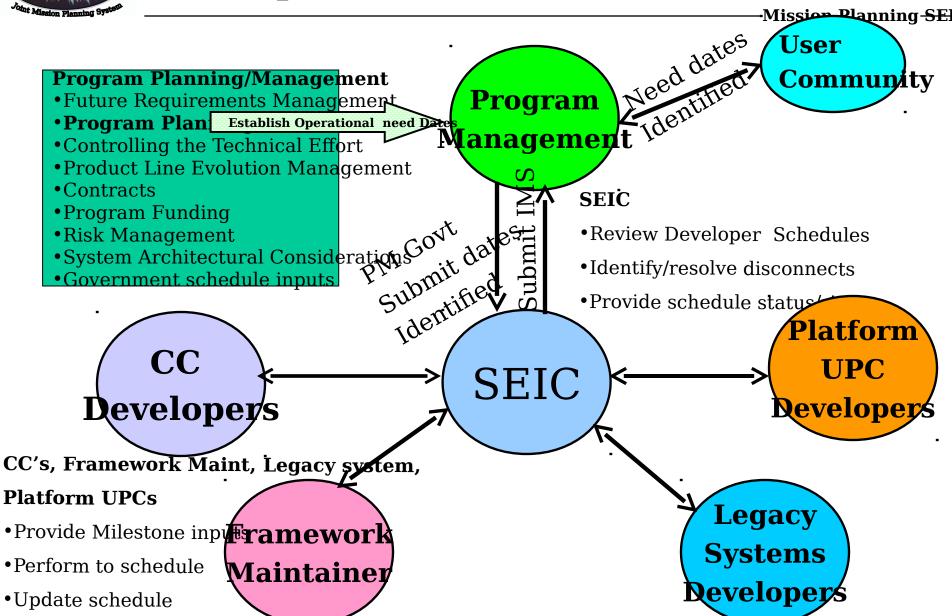
Mission Planning <del>SE</del>l







## Example Interactions





# Contractor Template Request your inputs

Refinement of Roles/Responsibilities



<Fill in

Task

Title>

<Fill in task>

sub-bullet

in

# Optional Homework Assignment You fill in for each task

Governme **SEIC** Framework **CC** developers UPC Legacy developers Maintainer **Systems** nt ~40 (PFPS, MPS, AF ~37 UPCs **(~1** capabilities TAMPS, contractor) (contra actor may **Navy** 15 AMPS) build multiple **UPCs** capabilities)  $(\sim 1)$ **Army 11 UPC** contractor in starting for each 2005 legacy system) <Fill in <Fill in

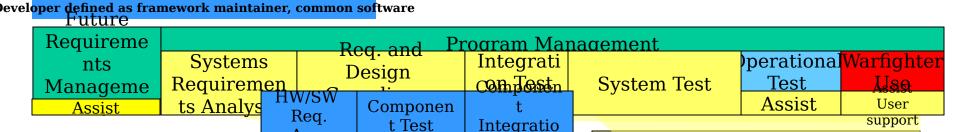
Request response no later than January 1

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# ypical Product Responsibilities Mission Planning SPET

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## Example

•Integrati **SEIT Tasks** 

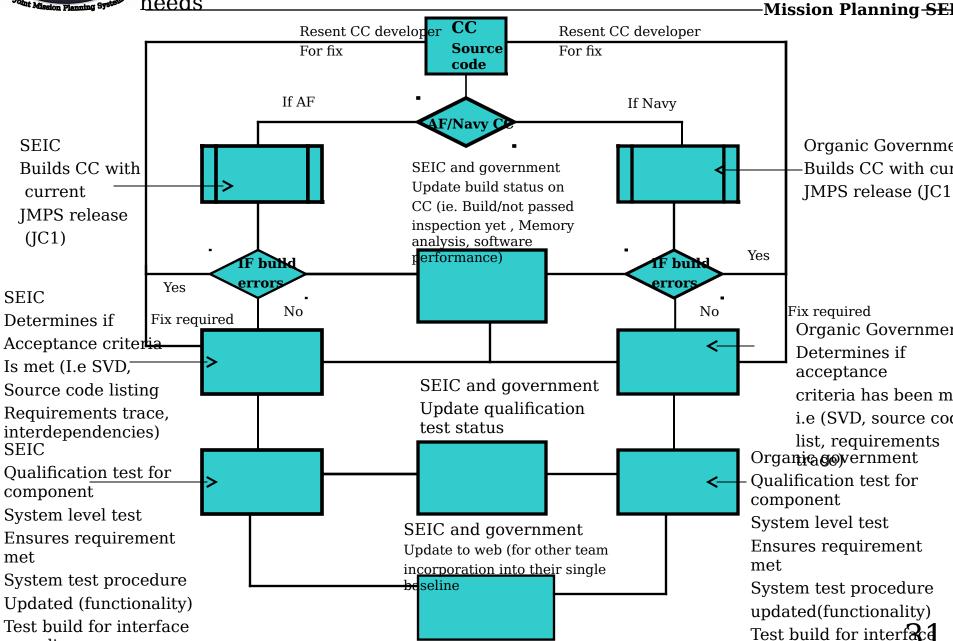
- Requirements Analysis
- Architecture and Design Guidance
- System Evolution Management
- Understanding UPC Customer Need
- •CM DM QA Ilities
  - Repository
  - Master Configuration Manage (source code, docs, etc) including managing multiple
  - -lines
- Cost, Schedule, Performance, Quality
- Risk Management
- Process Definition and Management
- User Support
- •Engineering Management
- Support Government Program
- Management
- Developer Support
- Maintain Close Coordination with Warfighters



Example



Example Service Specimentegration Process needs





# Example CM/DM QA ilities

The same of the sa		ampic				
CM/D M QA ilties	Government	SEIC	Framework Maintainer (~1 contractor)	CC developers ~40 capabilities (contra actor may build multiple capabilities)	UPC developers AF ~37 UPCs Navy 15 UPCs Army 11 UPC in starting 2005	ion Planning SE Legacy Systems (PFPS, MPS, TAMPS, AMPS) (~1 contractor for each legacy system)
СМ	Master configuratio n Manager(so urce code, docs, etc) including managing multiple baselines (B) Service lead receives CC, and all framework maintenance	Master configuration Manager (source code, docs, etc) Including managing multiple baselines (B) AF CC received and all framework and	Provides Release and any requir ed updates to The Master Configurati on Manager (G and contractor) Provide	Provides release to Service Lead and any Required updates to the Master Configurati on manager service lead (G and	Received Released versions with CC/Framew ork maintenanc e updates  Provide interface	Follow current CM policies
	updates	Maintenance	Interface	contractor)	test drivers	32



## Example CM/DM QA ilities

SEIC

Mission Planning SE

CM/DM QA ilties	Government	SEIC	Fram ewor k Main taine r (~1)	develo pers ~40 capabi lities	UPC developers AF ~37 UPCs Navy 15 UPCs Army 11 UPC in starting 2005	Legacy Systems (PFPS, MPS, TAMPS, AMPS) (~1 per system)
CM (Continu ed)	If fixes required, send to CC developer Test builds for Interface Compliance Framework to CC to Platform UPCs Provides a build status to Team (not building) Government (service lead I.e navy)Determines if Acceptance criteria Is met (I.e SVD, Source code listing)	If fixes required, send To CC developer Test builds for Interface Compliance Framework to CC to Platform UPCs Provides a build status to Team (not building) Determines if Acceptance criteria Is Met (I.e SVD, Source				33



# Example CM/DM QA ilities

-Mission Planning SE

CM/D M QA ilties	Government	SEIC	Framewo rk Maintain er (~1)	CC devel opers ~40	UPC developers AF ~37 UPCs Navy 15 UPCs Army 11 UPC in starting 2005	Legacy Systems( PFPS, MPS, TAMPS,A MPS)~1 per system
CM (Contin ued)	Government provides a Qualification test for component Updates status of qualification test to website Government performs a System level test Ensures requirement met System test procedure Updated (functionality) Test build for	AF Contractor provides a Qualification test for component AF Contractor performs a System level test Ensures requirement met System test procedure Updated (functionality) Test build for interface compliance				3.4



## **Challenge for Industry**

Mission Planning SE

- Feedback on roles/responsibilities
  - Complete template for SEIT tasks
  - Any missing tasks? ideas?
- Location of SEIC? Many sites need support, how?
  - To support a distributed environment